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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,556	10/17/2001	Arnold G. Slezak	P1535US01	6786

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EXAMINER

TUGBANG, ANTHONY D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 03/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 09/981,556	Applicant(s) SLEZAK, ARNOLD G.	
	Examiner A. Dexter Tugbang	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/17/01</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-8 and 20, drawn to a process of aligning discs in a disc drive, classified in class 29, subclass 603.03.
 - II. Claims 9-17, drawn to a product of a disc drive, classified in class 360, subclass 98.08.
 - III. Claims 18 and 19, drawn to assembling a disc drive with a carrier, classified in class 29, subclass 603.19.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Groups I, III and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)).

In the instant case, the final structure of the product of Group II can be made by a materially different process, such one that assembles the prewritten discs altogether simultaneously, without any repetition of steps.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Inventions of Groups I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to

Art Unit: 3729

be separately usable. In the instant case within the process of making, the invention of Group I has separate utility such as a step of aligning, that is not required in Group III. The invention of Group III also has separate utility, such as a carrier that is not required in Group I. See MPEP § 806.05(d).

5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Randall K. McCarthy on March 16, 2004, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8 and 20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-19 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Claims 1-8 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 1, the phrase of "the position" (line 14) lacks positive antecedent basis.

In Claim 2, the phrase of "the number of discs" (line 1) is unclear as to whether this is referring to a new set of discs, or if the phrase is referring to the previous phrase of "a number of

Art Unit: 3729

prewritten discs" (lines 1-2 of Claim 1). The same problem also occurs similarly in each of Claims 3 and 4.

Furthermore with respect to Claim 2, Claim 2 in its' entirety contradicts Claim 1 because while Claim 2 requires the number of discs to be one, Claim 1 requires there to be more than one disc, or a plurality of discs. Which is correct?

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Morehouse 3,824,572.

Morehouse discloses a method of assembling a disc drive comprising: placing a first prewritten disc (40 or 41) about a spindle motor hub (pack housing 31) of the disc drive; aligning a disc alignment mark (inner hole surface of either one of disc 40 or 41) of the first prewritten disc against the spindle motor hub (shown in Fig. 3); applying a corresponding biasing force via springs 24a, 24b to the first prewritten disc to pressingly engage the first prewritten disc against the spindle motor hub; repeating the above steps for more or each of the prewritten discs in a disc stack assembly; and clamping the prewritten discs with a disc clamp (either one of claims 23, 24, 36 or 37) to secure a position of each prewritten disc relative to the spindle motor hub. It is noted that the discs are considered to be "prewritten" with a prewritten servo pattern to the extent

Art Unit: 3729

that when the disc is removed for servicing, the disc is reassembled onto the spindle motor hub with a preexisting or prewritten servo pattern or servo track (see col. 2, lines 39-44).

Regarding Claim(s) 2, as best understood, Morehouse shows at least one disc 40.

Regarding Claim(s) 3, Morehouse shows more than one disc 40, 41.

Regarding Claim(s) 4-6, Morehouse shows that the biasing forces being applied by at least two of the springs 24a, 24b (in Fig. 1) at even angular intervals from the center of the positioning rotor 16 about an outer diameter of all of the prewritten discs with another two springs directly across from a selected disc stack having biasing forces in an opposite direction, or an opposite biasing direction. Since the discs are in a stack (as shown in Fig. 3), the claimed "biasing direction" can broadly correspond to any disc above or below a selected disc within the stack. In Figure 3, Morehouse shows 15 discs, which when multiplied by the number four, since there are four disc stacks, results in an "even" number of discs, i.e. 60 discs total.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 7, 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morehouse in view of Horning et al 5,987,735.

Morehouse discloses the claimed manufacturing method as relied upon above.

Morehouse does not mention that one of, or all of the manufacturing steps above, are performed

Art Unit: 3729

by a robotic assembly as well as one of the steps being performed by a human worker on an assembly line.

Horning teaches a manufacturing method of assembling discs on a spindle motor by repetitive steps of placing, aligning and applying a force to each disc with the use of a robotic assembly in an assembly line (see col. 11, lines 48+ and Fig. 2). Furthermore, it is understood that at least one human worker is needed on the assembly line to, for example, view the computer screen shown in Figure 4. The benefits of the Horning manufacturing process allows for a more automated process that exceeds expectations of manually assembling the discs (see col. 6, lines 39-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Morehouse by either using a robotic assembly or a human worker, as taught by Horning, to positively allow a more automated manufacturing process of assembling disc drives.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

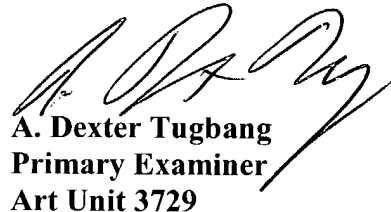
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599.

The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

Art Unit: 3729

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


A. Dexter Tugbang
Primary Examiner
Art Unit 3729

March 17, 2004